

## **Abstract**

**Title:** The influence of a high-fat diet on the parameters of body composition

**Objective:** Evaluation of the effects of a high-fat diet on weight, body composition and intervening variables in both diabetic and non-diabetic patients, comparing these effects with those of diets of lesser fat content, and an evaluation of these findings with latest dietary guidelines of WHO, FAO and Ministry of Health of the Czech Republic.

**Methods:** The design of this thesis is a review of randomized controlled trials and randomized crossover trials. A total of 17 trials were included, regardless of their blinding and their energy or saturated fat restriction. No specification of inclusion criteria with regard to minimal sample size or minimal duration of the intervention was made.

**Results:** The trials have shown that a high-fat diet produced on average greater weight loss in the short-term than a diet with lesser fat content, however, by 1 year the differences were not significant. No differences were observed between the effects of the diets on fat mass or fat free mass in any of the trials included. Trials comparing the effects of diets on appetite have shown that fat has a greater satiating effect than carbohydrate, but lesser satiating effect than protein. The findings didn't fully correspond with official guidelines, but more trials need to be done to give a definitive answer.

**Keywords:** nutrition, fats, body composition